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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,953	09/23/2003	Yuichi Tamaoki	00597/0200034-US0	4756

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EXAMINER	
BEISNER, WILLIAM H	

ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
06/11/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/669,953	TAMAOKI ET AL.	
	Examiner	Art Unit	
	WILLIAM H. BEISNER	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swan et al.(US 5,090,617) as evidenced by Phillips et al.(IEEE Transactions) or Wheeler et al.(IEEE) and taken further in view of Kobayashi et al.(JP 63-108262) alone or alternatively further in view of Dutton et al.(US 4,701,415).

The reference of Swan et al. discloses, a CO2 incubator (10) for incubating a culture medium accommodated in an incubation space (36) defined in a storeroom, the CO2 incubator comprising: CO2 gas concentration detection means (52, 102) for detecting a CO2 concentration in the incubation space, CO2 gas concentration setting means (82) for setting a desired CO2 gas concentration to be present in the incubation space, CO2 gas supply means (50) for supplying a CO2 gas into the incubation space, and a control means (92) for controlling the CO2 gas supply means that executes an operation of proportion, proportion and integration, or proportion and integration and differentiation on the basis of a deviation between the CO2 gas concentration in the incubation space as detected by said CO2 gas concentration detection means and the set CO2 gas concentration value set by said CO2 gas concentration setting means to calculate a CO2 gas supply time per unit time to the incubation space and a stop time, and to supply CO2 gas to the incubation space from the CO2 gas supply means in accordance with the calculated supply time and stop time (See PID controller discussed at column 1, lines 53-60; column 6, line 44, to column 7, line 50; and column 14, lines 49-68).

With respect to the claimed PID control, the references of Phillips et al. and Wheeler et al. are cited to evidence the level of skill in the art with respect to PID process control and to establish that the output of a PID controller inherently adjusts or calculates the "gas supply time per unit time" as is required in the instant claims.

Claim 1 differs by reciting that the incubator includes an air agitating blower and an air sampling loop communicated with the incubation space that includes the carbon dioxide gas concentration detection means and a pump for flowing gas through the sampling loop.

The reference of Kobayashi et al. discloses that it is conventional in the art to provide an incubation space (19) with an air-agitating blower (15) and an air sampling tube (31) and an air return tube (33) that includes carbon dioxide sensor (29).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the incubator device of the primary reference with an air sampling and agitating devices disclosed by the reference of Kobayashi et al. for the known and expected result of providing alternative means recognized in the art for sampling and mixing the air within an incubator space. If the measurement device (29) of Kobayashi et al. does not inherently include a pump for moving the air through the loop, the reference of Dutton et al. is cited as prior art which teaches that it is known in the art to provide the sampling loop of an incubator with a pump (39) (See Figure 6) for flowing the air through the loop components. In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the sampling loop of the modified primary reference with a pump for the known and expected result of ensuring the flow of air through the sampling loop of the device.

With respect to claim 2, the CO2 sensor (102) is an infrared sensor.

6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vision Scientific (CO2 Incubator Model VS-9108MS) as evidenced by Phillips et al. (IEEE Transactions) or Wheeler et al.(IEEE) and taken further in view of Kobayashi et al.(JP 63-108262) alone or alternatively further in view of Dutton et al.(US 4,701,415).

The reference of Vision Scientific discloses, a CO2 incubator for incubating a culture medium accommodated in an incubation space defined in a storeroom, the CO2 incubator comprising: CO2 gas concentration detection means for detecting a CO2 concentration in the incubation space, CO2 gas concentration setting means for setting a desired CO2 gas concentration to be present in the incubation space, CO2 gas supply means for supplying a CO2 gas into the incubation space, and a control means for controlling the CO2 gas supply means that executes an operation of proportion, proportion and integration, or proportion and integration and differentiation on the basis of a deviation between the CO2 gas concentration in the incubation space as detected by said CO2 gas concentration detection means and the set CO2 gas concentration value set by said CO2 gas concentration setting means to calculate a CO2 gas supply time per unit time to the incubation space and a stop time, and to supply CO2 gas to the incubation space from the CO2 gas supply means in accordance with the calculated supply time and stop time (See entire product brochure, especially the PID controller and IR sensor discussed on page 2).

With respect to the claimed PID control, the references of Phillips et al. and Wheeler et al. are cited to evidence the level of skill in the art with respect to PID process control and to

establish that the output of a PID controller inherently adjusts or calculates the "gas supply time per unit time" as is required in the instant claims.

Claim 1 differs by reciting that the incubator includes an air agitating blower and an air sampling loop communicated with the incubation space that includes the carbon dioxide gas concentration detection means and a pump for flowing gas through the sampling loop.

The reference of Kobayashi et al. discloses that it is conventional in the art to provide an incubation space (19) with an air-agitating blower (15) and an air sampling tube (31) and an air return tube (33) that includes carbon dioxide sensor (29).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the incubator device of the primary reference with an air sampling and agitating devices disclosed by the reference of Kobayashi et al. for the known and expected result of providing alternative means recognized in the art for sampling and mixing the air within an incubator space. If the measurement device (29) of Kobayashi et al. does not inherently include a pump for moving the air through the loop, the reference of Dutton et al. is cited as prior art which teaches that it is known in the art to provide the sampling loop of an incubator with a pump (39) (See Figure 6) for flowing the air through the loop components. In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the sampling loop of the modified primary reference with a pump for the known and expected result of ensuring the flow of air through the sampling loop of the device.

With respect to claim 2, the CO2 sensor is an infrared sensor.

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swan et al.(US 5,090,617) or Vision Scientific (CO2 Incubator Model VS-9108MS) as evidenced by Phillips et al. (IEEE Transactions) or Wheeler et al.(IEEE) and taken further in view of Kobayashi et al.(JP 63-108262) alone or alternatively further in view of Dutton et al.(US 4,701,415) as applied to claims 1 and 2 and taken further in view of Gross et al.(US 5,149,654).

The references of Swan et al. and Vision Scientific as evidence by Phillips et al. and Wheeler et al. and combined with Kobayashi et al. alone or alternative with Dutton et al. have been discussed above.

Claims 3-5 differ by reciting that the incubator includes a plurality of incubation spaces which can be independently controlled by the controller.

The reference of Gross et al. discloses that it is known in the incubator art to provide an incubator (29) with a plurality of incubation compartments (9).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the incubator devices of the primary references with individual compartments for the known and expected result of allowing the temperature of each compartment to be maintained separately with respect to another compartment. Modification of the device of the primary reference to separately control the conditions in each compartment would have been well within the purview of one having ordinary skill in the art for the known and expected result of allowing independent control of each culture compartment. Note, that mere duplication of parts has no patentable significance unless a new and unexpected result is produced (In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)).

Response to Arguments

8. Applicant's comments filed 3/28/2008 with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. Note new grounds of rejection were necessary in view of the newly recited limitations added to claim 1.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM H. BEISNER whose telephone number is (571)272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys J. Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Beisner/
Primary Examiner
Art Unit 1797

WHB